# Exhibit 11



## An Interview with David Pope, Former Chief Engineer

For 24 years, David Pope administered water laws in In the mid 1970s, I helped organize a couple of multithe state of Kansas. The fourth and longest tenured Chief Engineer of the Kansas Department of Agriculture's Division of Water Resources, Pope was regarded with a high degree of respect by those he regulated and the public at large.

The following views expressed by the Chief Engineer reflect his encyclopedic knowledge and recall and his consummate desire to educate. Information presented here comes from a presentation he made at the Kansas Water Congress in August of 2007 and an interview with HydroGram editor Hank Ernst. Pope trusts his memory is true to the events as they unfolded and acknowledges that the opinions offered are his alone, albeit ones that he hopes others will consider.

The interview includes the stages of David Pope's career, water resource actions, and his take on the traits and qualifications for a chief engineer.

Everyone identifies David Pope with the Chief Engineer's position. What did you do in the early years of your career?

I spent the first couple years (1971-1973) working for the Kansas State University Cooperative Extension Service in Manhattan with Russell Herpich, known as "Mr. Irrigation in Kansas" at the time. He and I traveled the state widely. I learned a lot about water and Kansans. The job involved delivering the results of K-State irrigation research to farmers. It had already become apparent that water was very limited in Western Kansas and water levels were dropping. worked three more years for K-State in Garden City.

#### How did you become involved in Southwest Kansas Groundwater Management District No. 3?

I moved to Garden City and worked for K-State Extension providing educational information about water issues, I co-authored a publication on the GMD concept, "Groundwater Management Districts in Kansas." (He laughs at the creative title.) I also actively assisted the steering committees that were taking the lead to organize the GMDs.

state groundwater conferences. Kansas, Texas, Colorado and Nebraska were involved. These meetings ultimately resulted in the creation of the Groundwater Management Districts Association in Kansas. I was a founding member and later became president while working for GMD No. 3. The GMDA is still an active multi-state group.

GMD No. 3 was approved by the local eligible voters in February of 1976 by an 80% plurality. The new board asked me to become their District Manager and I said yes.

You were asked to become the Assistant Chief Engineer in 1978. What did that job entail?

I supervised many of the staff, represented the Chief Engineer at many meetings and events, and helped deal with policy and complex regulatory cases. started work in Topeka at about the same time as did Lee Rolfs, DWR's first legal counsel for water. We've worked together ever since. When we started, there were no rules in place and little written criteria for anything DWR did.

Lee and I spent a lot of time drafting policies and ultimately regulations to define administrative procedures and criteria related to water appropriations and other statutes administered by DWR. During this period, agencies were required to start promulgating regulations to set policy. We also helped deal with numerous contested cases dealing with water and the first few Intensive Groundwater Use Control Areas.

You became Chief Engineer in 1983. Did it prove to be the job you expected?

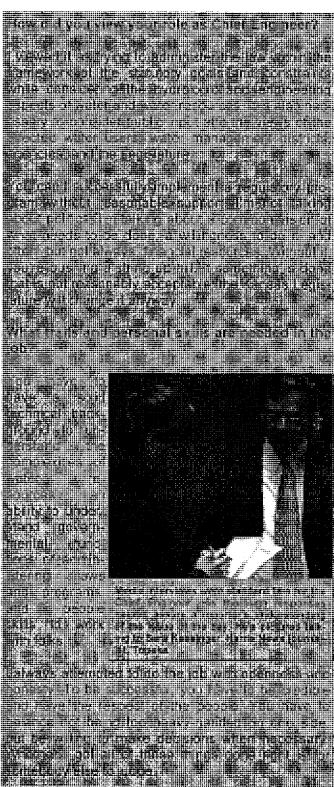
Little did I expect to spend most of the rest of my career in the position, let alone end up serving as Chief Engineer longer than any of my predecessors.

Serving as Chief Engineer turned out to be the biggest challenge of my career, and the most rewarding.

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## An Interview with David Const Examendation Entire

Some have said that it may be one of the most de- What were some of the highlights of your early manding positions in state government, but it was career? also an opportunity to deal with many interesting issues related to water and work with a lot of great peo- Helping to organize the GMDs and starting a new disple.



trict (Southwest Kansas Groundwater Management District No. 3) were the early highlights.

One of my most vivid memories is of attending a series of meetings sponsored by the Kansas Irrigation and Water Resources Association (KIWRA), a prominent group at the time of county and regional organizations interested in water and irrigation.

In the fall of 1971, KIWRA served as the main stakeholder group to review and support what became the 1972 Groundwater Management District Act. There was a strong recognition of the need for management and control of groundwater in Kansas.

While KIWRA wanted as much local control as possible, they recognized the role of the Chief Engineer and the need to operate within the state's basic water law, the Kansas Water Appropriation Act. Groundwater Management District Act passed easily in the 1972 Kansas Legislature and efforts began to organize Groundwater Management Districts (GMDs) in Kansas.

#### What led to the realization that controls would be needed?

The rapid pace of irrigation development in the 1970s, water level declines that were showing up and the limited controls on water use at the time.

In the 1950s and 1960s, there was a process for people to acquire rights to use water, but it wasn't necessary to have a permit to drill a well or to use water. The chief engineer could only step in if one water user impaired the ability of another to obtain water.

The real motivation for people to obtain a water right was to have a priority date for protection of their investment and water supply. This system provided a structure for the development of water and water rights in Kansas. At the time, it was not a strong regulatory system in terms of preventing overuse and development.

Irrigation came into its own on a large-scale basis in the 1960s with the advent of hybrid seeds, commercial fertilizers, and modern irrigation equipment and technology.



### an interview with David Pope English Children and Anti-

flood irrigation. The center pivot came along later.

There also were scientific studies that documented the water level declines. State agencies, particularly the Kansas Water Resources Board, predecessor to an office and install a phone. I started with a card tathe KWO, issued a number of reports about water ble and portable typewriter brought from home. For availability and trends in the water supply.

When talk started about what to do about the declines, there was a strong push back from local water users who didn't want heavy-handed state control. What type of management program did the Dis-That spurred the GMD concept.

Southwest Kansas and south central Kansas were Our first management program was limited, but it did ter conditions there at the time?

I was originally hired to work in the new Area Exten- Describe the biggest water problem of the day sion Office in Garden City and moved there in August and actions taken to make a difference. of 1973. It was a great move. I learned a lot and was able to work in the state's major irrigated areas of In 1976, a permit wasn't needed to drill a nonsouthwest and south central Kansas.

gone dry that summer (1973) and did not start flowing way to regulate groundwater pumping. that winter, as usual, after the irrigation season. As we now better understand, the water level had Together with the other GMDs, state agencies and a portion of the problem was caused by a reduction in permit. flow from Colorado!

## start-up of GMD No. 3?

I wrote the first management program for the district, implemented. About 3,000 applications were being had it approved by the Chief Engineer, and adopted filed each year during this period and new irrigation by the board after a hearing, all before I started work development was rapid in western Kansas. full time in June of 1976. We were anxious to begin active management of the district and pushed hard to Was the State of Kansas interested in water policy get on the tax rolls by summer so income would start in the late 1970s? in January of 1977, so we would have money to operate.

tion was passed in the 1976 Legislative session to cial committee met to study the issues.

Much of that earlier development was with gravity or allow "no fund warrants" to be issued that summer. I agreed to not cash my paychecks for several months until we had money in the bank.

> The Board president loaned the District money to rent the first few months, I copied records from DWR and made maps of well locations, etc. Nothing was computerized.

> trict have in place at the time?

key irrigation areas then and now. When did you include a one-half mile well spacing as a quick control move to Southwest Kansas and what were the wa- to help prevent too many wells in any given area and to help prevent well interference.

domestic large capacity well in Kansas. An application to acquire a water right had to be filed if you wanted Many people observed that the Arkansas River had to acquire a water right, but there was no practical

dropped enough in the aquifer to stop the base flow, other groups, GMD No. 3 supported legislation to largely due to the extensive pumping. It was more make it unlawful to appropriate water without a popular to blame it on Colorado. Over the next sev- Vested Right or Permit to Appropriate Water or to vioeral years, the river gradually dried up further down- late the terms, conditions or limitations of a water stream through Dodge City and beyond, as water lev- right-which limited the legal amount that could be els continued to drop and impact the river. Of course, pumped to the authorized amount of the water right or

This was an historic shift in water regulation in Kan-Were there growing pains associated with the sas. Before, DWR was basically just processing applications and issuing permits with very little restriction. In all fairness, it was awaiting the GMD concept to be

Yes, the mid to late 1970s was an active period for water policy and legislative study in Kansas. The Gov-Since the Districts that had just formed would have ernor's Task Force on Water had been established by had no money for more than a year, special legisla- Governor Bennett and each summer a legislative spe-



#### An Interview with Lavis Popul Furner Climidensposing

Other GMD managers and I participated actively in largely in response to action by the Division of Water GMDs were deeply involved.

#### What was the upshot of all of this activity?

It became apparent that major problems lay ahead GMD No. 3 did consider an IGUCA in the Sand Hills related to long-term use of water in Western Kansas. south of Garden City, but it never went forward. There was a lot of interest in methods to limit groundwater declines. The Kansas Legislature was inter- How have Groundwater Management Districts needed to deal with the issue. Most of the groundwa- sources? ter management districts' board members were interested in progressive management of groundwater.

declines in problem areas of the district. The proposal course, only the DWR is involved. was loosely patterned after a process being used in Oregon. The general view was that to effectively deal The DWR was always reluctant to unilaterally estabful, and the IGUCA statute was passed.

The measure had strong support from the GMDs to provide additional authority to deal with long-term There always was a lot of give and take between of allowing IGUCAs to be established.

It was expected that most of these IGUCA's would come at the request of the GMDs. The legislators wanted to ensure that the Chief Engineer would act on the request, but also gave the Chief Engineer authority to hold the hearing and determine, ultimately based on the facts, and the record, as to whether an IGUCA should be formed and what the controls would be. The IGUCA order was subject to court review.

As Chief Engineer, I became very involved in the IGUCA process. We established eight IGUCAS. Ironically, with one minor exception, none related directly to the Ogallala Aquifer were ever recommended by any of the three western GMDs.

GMD No. 3 did recommend the Upper Arkansas River IGUCA along the river corridor. It, however, was

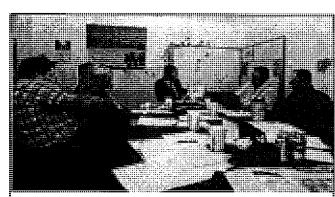
these processes. The districts had formed the Kansas Resources to protect the water rights of the irrigation GMDA to serve as a forum to meet with DWR and ditch companies. A moratorium had been put in place other state agencies. Presidents and managers of the as of January 1977 to prohibit new permits or wells because of the effect of groundwater pumping on the river and senior ditch rights. It was a good recommendation, but it probably needed to be broader.

ested in helping provide the statutes and "tools" worked together with the Division of Water Re-

There are numerous examples of districts and DWR working together to deal with various kinds of prob-In 1978, the GMD Act was amended to allow the lems. I only mention the IGUCA statute because it creation of Intensive Groundwater Use Control Areas provides an organized process to deal with water (IGUCA). I had originally attempted to include some shortages and other such problems. It provides a role criteria in GMD No. 3's "Revised Management Pro- for both the district and the Division of Water Regram" to deal with significant, long-term water level sources, if it is inside a GMD. If it's outside a GMD, of

with regional declines in the water level, additional lish an IGUCA within a GMD without its request. statutory authority would be needed, or at least help- While it could be done, there would likely be significant resistance and possibly difficult to implement such an IGUCA.

problem areas while not limiting the current authority DWR and the Districts. I can remember numerous of the Chief Engineer. As I recall, there was some de- conversations with GMD managers, presidents and bate in the Kansas Legislature about the nature of the board members. As the years went by, we started encontrols that could be used, but not about the concept couraging stronger action by the districts due to the increase in water level declines. We knew we couldn't continue indefinitely at the rate we were going.



Trenigh the years David Free has worked closely with the Oriendieske Managerent Zietrich. He meste ham eith monbern of Sig Bend Groundwater Nunespenert Chaiset No. 4 in Simiferii, circa Stifii.



#### An Interview with David Pope, Former Childson,

In 2000, the Kansas Water Office led a process that needed to occur and that there needed to be controls developed into the Ogallala Aquifer Management over pumping and water use. Plan. An Ogallala Management Task Force and a companion technical committee were created. We For a number of years, each of the districts did a ful these efforts will be.

#### Did GMD No. 3 make any major changes to its There has been a willingness to enforce pumping remanagement program?

time for restrictions on new appropriations of water.

I had researched what other states in the Ogaliala aq- they should have. uifer area were doing because any restriction on permits for new wells was a very controversial issue. I To their credit, the Equus Beds GMD and Big Bend expected any new policy would be challenged.

Court, so I used it as a pattern for GMD No. 3. It was agement is to be achieved. recognized that some of GMD No. 3, especially in the southern portion of the district, had limited current use Given that the GMDs' focus was on groundwater, and a lot of water in storage.

deplete" or for the "policy" and later regulation to stay grams? in effect for nearly 25 years. Its real goal was to limit new development in those early days in a way that In the mid-1990s, the DWR created the Subbasin Waappropriated.

#### Did the original enthusiasm for addressing groundwater declines wane over the years?

think they had thought all of the way to the end game sins. in terms of what might happen, but they knew change

now have a process in place in which the districts pretty good job of developing policies and regulations agreed to develop the protocols, strategies, goals and that restricted new development, started to collect actions to conserve and extend the life of the Ogal- data and understand what really was going on. Melala. Success of the plans will depend on local initia- ters were required in several districts. They became tive within the districts and time will tell how success- somewhat of a force to try to really manage groundwater in those areas.

strictions and regulate new development, but the big. long-term purpose of the GMDs in Western Kansas On July 12, 1978, when I was District Manager, the was to deal with water level declines. In all fairness, GMD No. 3 board adopted a major revision to its most of the development in southwest Kansas was management program. For the first time in Kansas, an already in place in the mid-1970s. Declines that have analytical approach was put in place to determine occurred since then have been largely caused by the when groundwater was "available" for appropriation, development in place by the end of the 1970s, in a There was essentially no precedent in Kansas at the relative sense, there has not been that much development since the 1980s, although some areas stayed open to new appropriation a little longer than I think

GMD both developed early versions of "safe yield" policies in the 1980s. Unfortunately, some of the re-Only Colorado and New Mexico had significant re- charge rates were over estimated, and the impact of strictions. They were based on a method that limited groundwater pumping on stream flow was not dealt the amount of depletion that could occur by new with as early as would have been ideal. As a result, wells. Colorado's 40 percent depletion in 25 years there are still challenges to be dealt with, especially in method had recently been upheld by its Supreme Big Bend GMD, if long-term sustainable yield man-

what did the state do to foster greater understanding of the groundwater/surface water connection I never expected the policy to be viewed as a "right to and to encourage long-term management pro-

would withstand an expected legal challenge, recog- ter Resources Management Program to address surnizing that much of the district was already over- face water, groundwater connection and long-term management of the resource. In part, we were filling a void because these issues were not being addressed.

We had teams of environmental scientists helping to implement recommendations of the State Water Plan It seemed apparent to me that the initial boards of di- to deal with water level declines, stream flow reducrectors for most of the districts were very interested in tions and other problems. Target areas included the truly dealing with the current water problems and put- Rattlesnake Creek, the Upper and Middle Arkansas ting good management in place for the future. I don't River, the Pawnee Buckner and Solomon River Ba-

#### An interview with Navid Pone. Formerchiefeligheiden.

and groups) were parties to the discussions.

tive process because the people using the water have duce it. a huge stake in what happens long term. We knew something had to occur, but we weren't sure what the Closely related to the waste and beneficial use quesof coming up with management strategies.

Among the stakeholders were those who were ada- gation of crops. mant about no more regulation. The state and nation also were in a period of conservative government and. Water rights established in the 1960s and 1970s were budgets were tight.

an example of trying to involve the partners to help now. get things done with a lot of leadership from local citia lot and some progress has been made.



All of Kansas' water resources, both surface water and groundwater, were under Pope's purview. Here he takes part in a tour at Lake Lenexa

beneficial use without waste." How do you deter- use? mine waste, and if it is waste, why hasn't that been taken into account in corrective actions?

problem these days.

The idea was to collect needed data and work with We have to be careful in pushing water use efficiency the local people to develop strategies to deal with the alone as a solution. Increased efficiency doesn't necproblems. GMDs and other stakeholders (individuals essarily save as much water as people think. The amount of water pumped isn't the only determinant. It is the amount of water consumed that affects the hv-We didn't go into it with the goal: "This is absolutely drologic system. That's driven by the type of crop, agwhat has to happen." We wanted it to be an interac- ronomic practices and how much water it takes to pro-

answer was. We viewed it as a form of brainstorming, tion is the phrasing in the Water Appropriation Act that says all appropriations of water shall be limited to the reasonable needs of the appropriator. Critical here is In reality, the options are limited...you've got either determining under today's circumstances what would regulation or voluntary, incentive-based solutions, be a reasonable amount of water needed for the irri-

based on what was deemed reasonable at the time. Is that still reasonable today? One could say 2-acre feet It's easy for someone to say, "Pass a regulation or per acre was reasonable in 1970 in southwest Kanorder it to be done." That's a challenge with limited sas, but it may not be a reasonable number in 2007 budgets, staff and resources. You have to have a syn- because of increased efficiency, better technology ergism of actions. The Rattlesnake Creek Program is and limited water supply, all of which are different

zens. While progress has been made, it never really. In fairness, a typical crop isn't using that much less has gone as far as we had envisioned, but we learned water today. It takes water to produce dry matter, but because of increased efficiency, water use has stayed the same or gone down, while yields have gone up. There's less water pumped per acre now than there was 20 or 30 years ago, but the net consumption of water has not gone down as much.

> The water use reports and the metered information now collected by the Groundwater Management Districts and the Division of Water Resources indicate that the average farmers' usage is 2/3rds to 3/4<sup>th</sup> of their water right amount.

Has consideration been given to giving prefer-The Water Appropriations Act reads: "...put to ence to water right priority based on the type of

I am convinced based on all of my years in water resource management that developing a preferential The "waste" idea is one that has not been explored to use system would be a disaster...an unmitigated disthe extent that it probably could be. The traditional, aster. There's no way to protect the value of the prophistoric view of waste is water that you can see that erty right, and how do you administer it at this stage of runs off of the field. Everyone probably agrees that the game? Under the current system, if a city needs should not be allowed. For the most part, that's not a more water, it can go out and acquire existing water rights.



#### An Interview with Davie Pene. Paymer Elizabeth English with the contract of th

Cities or other such users pay the water right holder stopped it, or kept it from being as large, and as sigto buy or lease the water right and convert the type of nificant as it could have been. There was a definite use from irrigation, for example, to municipal pur- need to significantly reduce water use in an area that poses.

in terms of which use is more important, but I don't broader question you're asking. see how you could do it now without creating constitutional problems. Many uses need water; some have a What's the proper balance between education and higher economic value.

Are we going to turn off our air conditioners, so some It just took time for that recognition to take place. other use with a higher preference gets the water? I don't think so.

ter rights need to be cut back in order of priority or got a lot of analysis. based upon a reasonable allocation system, consisor painless in the short run.

How can the State Water Planning process be sis on education. modified to generate buy-in to a comprehensive water management plan that would not run into Ultimately, either locally, or at the state level, there difficulty in passage by the Kansas Legislature?

A great question. The concept of having a comprehensive plan is good. There have been a lot of good What will be the biggest challenges for programs tween the concepts in a "plan" and the challenge of (Water TAP)? implementation. That takes money, statutory authority and actions by agencies to implement the plans.

more buy-in from a wider range of leadership, both can't blame them for that. within and outside the Legislature.

There was so much effort and seemed to be good of Western Kansas. buy-in by most people. Literally a handful of people

will still have to deal with a long term water shortage. We did not take advantage of a large amount of fed-If you had a preference system from Day 1, I suppose eral funding that would have been available to help you could concoct a system, subjective as it may be, solve the problem. That's a minor example of the

## regulation?

Industrial use often would be viewed as the lowest on There needs to be a balance. Consider metering. It the totem pole of most lists. Does that mean some- met with a lot of resistance, initially. People didn't body wants their power plant shut off because of in- want it for fear of regulation. They ultimately recogadequate water? Are we going to turn off our lights? nized that metering was a needed management tool.

In all fairness, we may have run our course over the last 20 to 30 years in putting a huge amount of em-A "preference" system may sound good to some peo- phasis on the education and voluntary, incentiveple at first, but its flawed logic. I don't support it. I want based program side. Ultimately, more emphasis will to be clear about this. We have a good system. We have to be put on the regulatory side. We're just at just need to use it. If there's a shortage of water, wa- that stage. We've got a lot of data collection; we've

tent with the Appropriations Act and IGUCA statutes, There will not be enough money to solve the probif desired, that will still satisfy as many beneficial uses fems with voluntary, incentive-based programs in as possible. There are ways to do it, but it is not easy terms of acquiring or retiring water rights. That's not to take away from the value of incentive programs. Neither does it mean that we should discontinue empha-

> will need to be more regulation to deal with the more serious of the water problems.

things happen over the years through the current like the Conservation Reserve Enhancement Proplanning process. There's always the relationship be- gram and Water Transition Assistance Program

Timing has turned out to be unfortunate in both cases. given the price of commodities. Farmers can make Perhaps part of the answer is somehow garnering better money now irrigating and producing crops. You

There will not be enough money to pay the price that One of the most frustrating examples in my career people seem to think their water rights are worth. was watching what happened on the Conservation There appears to be an inflated expectation of the Reserve Enhancement Program project the past three value of the water rights given the fact that there is years. The proposal seemed to make so much sense. not a long-term source of water for all of them in much



#### An Interview with Dawid Porcel Permantaine Large service

We just need to pursue thoughtful programs that set allocated. The key was establishing the IGUCA within reasonable goals for how to deal with the manage- the framework of the Kansas Water Appropriations ment of the High Plains aquifer. This will vary by area. Act, but adapting the controls to the physical situation Some hard choices will have to be made on the so as to minimize the economic harm to the broader amount of water that can be pumped now and into the community by limiting regulation as much as possible. future. It probably will be based on a phased transition over time, recognizing that you don't solve these What new statutory authority would benefit the things over night. They didn't happen over night.

As additional depletion occurs over the Ogallala aqui- For the most part, the statutes now in place are pretty try to maximize the benefit from the limited use of wa- fendable in a court of law. ter both short and long term.

not enough water to go around, you have to make much over too long a period of time. hard choices and it is hard for people to choose longterm benefits over short-term gain.

they're doing indefinitely. That's probably not going to ment and the upshot of the litigation. be possible.

## Creek IGUCA?

son learned. We gave flexibility within the control pro- General Stephen in the U.S. Supreme Court. visions so the irrigators could manage their water between wells, within limits.

While some water users had major concerns at the on water administration matters. time of the IGUCA order, the benefits now seem to be face water rights.

water right holders in terms of how much they were compliance program.

## Chief Engineer?

fer area, there will likely have to be more and more darn good. That doesn't mean they couldn't be imrestrictions over time. People may not want to do this proved. The big challenge has simply been taking the and that's a legitimate policy and regulatory choice, authorities that are there and the resources available subject to the further right of the more senior water and doing the best for specific circumstances. You rights to seek enforcement to prevent impairment of have to make sound decisions that hopefully are not their rights as the supply diminishes. Actions should only good for the people of Kansas, but that are de-

There may need to be more specific goals set for how Through it all, you can't forget the viable local econo- to deal with long-term shortages of water in some armies that are important to people now. When there's eas...maybe we've waited too long...and deferred too

As Chief Engineer, key events included the litigation over the Arkansas River Compact and the Re-People in some cases would like to continue what publican River Compact. Describe your involve-

I was extensively involved in the Kansas v. Colorado What lessons could be learned form the Walnut dispute even before the case was filed. I served on a special committee of the Arkansas River Compact Administration to investigate alleged violations of the That IGUCA was tailored to meet a unique set of cir- compact. Each interstate compact has a process to cumstances in that stream-aquifer system. People resolve differences. When the process was unable to can adjust to the use of less water was the main les- resolve the dispute, a lawsuit was filed by Attorney

rather than being subjected to rigid rules. It included I actively participated on the state's litigation team multi-year allocations and the flexibility to move water during my entire tenure, attending most of the 260 plus days of trial and testifying several times as an expert witness before the Special Master, especially

better recognized. They have a more stable water While old news now, Colorado was found in violation supply. The water level fluctuates up and down some, of the compact and paid more than \$34 million in but previously the water levels got so low that some damages to Kansas. Colorado also will be subject to wells were starting to suck air. Even though people future compliance requirements which will be detailed can pump less, it's more reliable and stable in the in the final Court Decree which is finally nearing comlong-term, and we were able to protect the senior sur- pletion. In more recent years, the Colorado State Engineer and I, and our advisors, met numerous times and successfully resolved some 15 or 20 major issues We didn't do an absolute first in time (favoring senior related to compact compliance, operation of the John rights), but there was preference given to the senior Martin Reservoir and implementation of Colorado's

#### An Interview with Davie Page, Example and Elements

Ironically, we both "retired" at about the same time.

talented and dedicated people involved in both these regulatory and planning decisions needed for the cases, including agency staff, the AG's office, outside process of accurately perfecting water rights. counsel and various consultants.

The Republican River Compact dispute with Ne- years. Some of the more important ones established braska and Colorado also included my extensive in- "safe yield" as the regulatory policy for new appropriavolvement. After unsuccessful attempts to resolve the tions of water, to avoid long-term water level declines, matter through the Compact, a lawsuit was filed by protect existing water rights and Minimum Desirable Attorney General Stovall. The case eventually was Streamflows. Rules were also developed to prevent a settled prior to trial after a couple years of intense ne- net increase in consumptive use as a result of a gotiations. I led the Kansas settlement team.

mine groundwater depletions to stream flow.

The case is likely one of the best examples of a jointly developed computer groundwater model by parties in After struggling for years, we were able to resolve a a major lawsuit by some of the best modeling experts very large backlog of work to inspect diversion works in the nation. It avoided a major battle of the experts, and issue Certificates of Appropriations that docuhad the case gone to trial, and minimized a major ment the extent to which a water right has been persource of dispute for the future.

of the complex technical aspect of the case is in dis- time goals in most cases. pute, although taking the actions necessary to comply continues to challenge Nebraska and Colorado.

## you dealt with and how were they accomplished?

significant hazard dams. It is now even better and Act and requirements for water conservation plans. many of the problem dams can now be dealt with to dam safety rules in 2007.

technical assistance and floodplain map updates, as always tell the public what the public wants to hear. well as improve the regulatory program to deal with stream obstructions and channel changes.

The Kansas water use program is one of the best in the nation. It provides valuable information on how I do want to emphasize that there were many highly much water is used, which is important to make better

Significant new regulations were developed over the change to an existing water right. This was to prevent impairment to other water rights and to protect the The settlement includes a very detailed set of ac- source of supply. This process also allows new and counting criteria, extensive monitoring and data col- different uses to occur by changing existing water lection and the use of a groundwater model to deter- rights to new uses, even if the area is closed or fullyappropriated, while preventing a net increase in water use from the new use.

fected. This is an important step in the water rights process. We also were able to resolve the backlog While compliance has not yet been achieved, I be- for processing new applications and applications to lieve the settlement will serve Kansas well. Very little change existing water rights and meet the processing

A lot of effort was made to cooperate with other natural resources agencies so that programs are well co-What were some of the other important matters ordinated. Several State Water Plan programs were implemented over the years. These include Minimum Desirable Streamflows, which are now actively en-There were many other challenges throughout the forced on numerous streams during periods of low state and the whole range of responsibilities of the flow, the Kansas Water Assurance Program to pro-DWR. In the water structures program, dam safety vide dependable water supply for municipal and inwas always important. In the 1980s, we were able to dustrial water users during drought in several eastern establish an inspection program for existing high and Kansas river basins, the Environmental Coordination

protect public safety, but large challenges still exist. Finally, I would note that none of this would have We were able to adopt a comprehensive set of new been possible without the tremendous job that the staff members of the Division of Water Resources and others in the Kansas Department of Agriculture have We were able to develop a much better floodplain done over the years. They are very dedicated people management program in recent years, including more and truly serve the public, even though they cannot